BY ORDER OF THE CHIEF,
NATIONAL GUARD BUREAU

MANPOWER STANDARD 23B1SO

1 DECEMBER 2004

Manpower Standard

STRUCTURAL AND CORROSION EC-130E (RIVET RIDER)

COMPLIANCE WITH THIS PUBLICATION IS MANDATORY

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This Air National Guard Manpower Standard (ANGMS) quantifies the manpower required to accomplish the tasks described in the process oriented description (POD) for varying levels of workload in the Structural and Corrosion EC-130E (Rivet Rider). This ANGMS applies to the Structural and Corrosion EC-130E, Rivet Rider mission only, at the 193rd SOW, PA. This standard applies to peacetime operations only. The Air National Guard (ANG) is the authority for the approval and publication of ANG Manpower Standards. Air Force (AF) and ANG directives contain policy and procedural guidance for the operation of the Rivet Rider function. This standard was developed in accordance with AF Instruction (AFI) 38-201, *Determining Manpower Requirements*, and AF Manual (AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP) - Processes*, and AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*. Send comments and suggested improvements on AF IMT 847, *Recommendation for Change of Publication*, through channels, to ANG, Management Engineering Branch (ANG/XPME/Operating Location TN [OLTN]), 106 Briscoe Drive, McGhee Tyson ANG Base, TN 37777-6283.

1. STANDARD DATA.

1.1. Approval Date: 1 December 2004.

1.2. Man-hour Data Source: Operational Audit method (historical record and technical estimate techniques).

1.3. Standard Man-hour Equation: $Y = 259.8 + 2.340(X1) + 12.12(X2)$.

1.4. Workload Factor.

1.4.1. Titles:

1.4.1.1. X1 = A Programmed Flying Hour.

1.4.1.2. X2 = A Primary Aircraft Vehicle Authorized.

1.4.2. Definition:

1.4.2.1. X1 = Monthly number of flying hours programmed.

1.4.2.2. X2 = Average monthly primary aircraft authorized.

1.4.3. Source: USAF Program Document (PD), Volume II maintained by ANG/XPPI.

1.4.4. Points of Contact.

1.4.4.1. Functional: Lt Col Robert Hoback, ANG/LGY

1.4.4.2. Manpower: Mr. Steve Griffith, XPME, Engineering Branch

2. APPLICATION INSTRUCTIONS:

2.1. Step 1. Man-hour Equation. Apply the man-hour equation in Paragraph 1.3., to determine required man-hours.

2.2. Step 2. Man-hour Availability Factor (MAF). Divide the resulting man-hours by the appropriate MAF times the overload factor.

2.3. Step 3. Upper and Lower Extrapolation Limits:

2.3.1. $Y_U = 829.47$

2.3.2. $Y_L = 497.69$

2.4. Step 4. Air Force Specialty Codes (AFSC) Requirement. Use the Manpower Table Attachment 3 to determine required AFSCs.

3. STATEMENT OF CONDITIONS. The conditions listed below had no affect on the development of this standard: minimum response rates, minimum manpower levels, standardized crew complements, safety considerations, aircraft turn-around time, length of waiting periods, levels of backlog and hours of operation.

DANIEL JAMES III, Lieutenant General, USAF
Director, Air National Guard

Attachment 1

GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION

References

AFI 38-201, *Determining Manpower Requirements*

AFMAN) 38-208, Volume 1, *Air Force Management Engineering Program (MEP)-Processes*

AFMAN 38-208, Volume 2, *Air Force Management Engineering Program (MEP) - Quantification Tools*

Abbreviations and Acronyms

AF - Air Force

AFMS - Air Force Manpower Standard

AFSC - Air Force Specialty Codes

ANG - Air National Guard

ANGMS - Air National Guard Manpower Standard

FMB - Financial Management Board

MEP - Management Engineering Program

MSDS - Material Safety Data Sheets

POD - Process Oriented Description

TCTO - Time Compliance Technical Order

UTA - Unit Training Assembly

Terms

Air National Guard Manpower Standard (ANGMS). A numbered, specialized publication that quantifies manpower requirements for a work center. Also includes approved variances. See AFI 38-201.

Man-hour. A unit of measuring work. It is equivalent to one person working at a normal pace for 60 minutes, two people working at a normal pace for 30 minutes, or a similar combination of people working at a normal pace for a period to time equal to 60 minutes.

Manpower Standard. The basic tool used to determine the minimum level of manpower required to support a function. It is a quantitative expression that represents a work center's man-hour requirements in response to varying levels of workload.

Process Oriented Description. A format that shows work center responsibilities structured for easy measurement of work categories, tasks and subtasks.

Attachment 2

PROCESS ORIENTED DESCRIPTION
STRUCTURAL AND CORROSION

Table A2.1. Listing of Functional Process.

1.	ON-EQUIPMENT STRUCTURAL REPAIR MAINTENANCE AND CORROSION CONTROL.
1.1.	PERFORMS AIRCRAFT STRUCTURAL REPAIR AND CORROSION CONTROL. Inspects, bench checks, evaluates damage, determines disposition, performs structural repair, corrosion control, stenciling, and fabrication.
1.1.1.	REPAIRS AIRCRAFT AIRFRAME COMPONENT.
1.1.2.	REPAIRS AIRCRAFT COCKPIT AND FUSELAGE COMPARTMENT COMPONENT.
1.1.3.	REPAIRS AIRCRAFT LANDING GEAR COMPONENT.
1.1.4.	REPAIRS AIRCRAFT FLIGHT CONTROL COMPONENT.
1.1.5.	REPAIRS AIRCRAFT TURBO PROP POWER PLANT COMPONENT.
1.1.6.	REPAIRS AUXILIARY POWEER PLANT COMPONENT.
1.1.7.	REPAIRS HYDRAULIC PROPELLER COMPONENT.
1.1.8.	REPAIRS AIR CONDITIONING, PRESSURIZATION, AND SURFACE ICE CONTROL COMPONENT.
1.1.9.	REPAIRS MISCELLANEOUS UTILITY COMPONENT.
1.1.10.	REPAIRS AIRCRAFT ENGINE OR QUICK ENGINE CHANGE KIT.
1.1.11.	REPAIRS FUEL CELL.
2.	PERFORMS SPECIAL AIRCRAFT OR AIRCRAFT COMPONENT CORROSION INSPECTION. Performs inspection of aircraft and aircraft component to identify corrosive area.
3.	PERFORMS CORROSION CONTROL ON SUPPORT EQUIPMENT. Performs corrosion control on support equipment which is beyond user capability to maintain.
4.	AIRCRAFT REFURBISHMENT AND INSPECTION. Performs aircraft refurbishment and inspection.

5.	CORROSION CONTROL AND PAINTING OF MISCELLANEOUS EQUIMENT. Performs corrosion control and painting of cargo pallet, mobility cargo bin, and pilot helmet.
6.	FABRICATION. Performs local manufacture of part, assembly, and unit not included in Category 1.
7.	TIME COMPLIANCE TECHNICAL ORDER (TCTO). Performs maintenance required on/off the aircraft in accordance with applicable TCTO and completes documentation.
8.	ASSISTANCE. Assists other maintenance function in the performance of direct labor maintenance requirement to ensure the effective utilization of maintenance personnel.
9.	TECHNICAL DATA SUBACCOUNT MAINTENANCE. Receives and posts technical data, changes, and supplements to technical order file. Maintains and inventories file for serviceability.
10.	MAINTENANCE AUTOMATED SYSTEM. Makes input to Core Automated Maintenance System. Retrieves, analyzes and reconciles data.
11.	HAZARDOUS WASTE PROGRAM MANAGEMENT.
11.1.	PROCESSES HAZARDOUS WASTE. Identifies, labels, contains, and disposes of hazardous waste.
11.2.	MAINTAINS COLLECTION FACILITY. Maintains hazardous waste accumulation point, satellite collection area, and container.
11.3.	MAINTAINS PROTECTIVE EQUIPMENT. Inspects and maintains protective equipment. Maintains individual certification for respiratory protection.
11.4.	PARTICIPATES IN POLLUTION, PREVENTION, AND REDUCTION PROGRAMS. Attends training classes in chemical reduction and management. Monitors level of usage.
12.	FOREIGN OBJECT DAMAGE WALK/INSPECTION. Performs walk around the maintenance complex and runway for debris.
13.	NON-POWERED AEROSPACE GROUND EQUIPMENT (AGE)/SHOP INDUSTRIAL EQUIPMENT. Inspects and repairs non-powered AGE and shop industrial equipment.
14.	BENCH STOCK.

14.1.	MAINTAINS BENCH STOCK. Determines requirement, obtains part from Supply, stores in bin upon receipt, and maintains required documentation. Initiates/implements Products Quality Deficiency Report for item not meeting government specifications.
14.2.	PERFORMS ANNUAL BENCH STOCK REVIEW.
14.3.	MAINTAINS WORK ORDER RESIDUE. Stores and distributes as needed.
15.	SHOP STOCK.
15.1.	MAINTAINS SHOP STOCK. Determines requirement, obtains part from Supply, stores in bin upon receipt, and maintains required documentation.
15.2.	MAINTAINS WORK ORDER RESIDUE. Stores and distributes as needed.
16.	SPECIAL PLANNING OR SCHEDULING: Performs planning or scheduling associated with preparation for unit training assembly (UTA), annual tour, and mobility/deployment participation.
16.1.	PREPARES FOR UTA.
16.2.	PREPARES FOR ANNUAL TOUR.
16.3.	PREPARES FOR MOBILITY/DEPLOYMENT PARTICIPATION.
17.	TRAVEL. Travel as it relates to the EC-130 aircraft. Travel time for getting to and from workshop, conference, and meeting.
18.	AIRCRAFT WASH FACILITY/WASHRACK MANAGEMENT. Manages and maintains aircraft wash and corrosion control facility and related supplies and equipment. Inspects aircraft for proper cleanliness and lubrication.
19.	MATERIEL SAFETY DATA SHEETS (MSDS). Updates MSDS file to maintain serviceability.
20.	INDIRECT. Indirect work involves those tasks that are not readily identifiable with the work center's specific product or service. The major categories of standard indirect work are: Administers Civilian, Officer, and Enlisted Personnel; Directs Work Center Activity; Provides Administrative Support; Prepares for and Conducts/Attends Meeting; Administers Training; Manages Supplies; Maintains Equipment; and Performs Cleanup.

Attachment 3

MANPOWER TABLE

Table A3.1. Standard Manpower Table.

WORK CENTER/FAC Repair and Reclamation/FAC 23B1SO			APPLICABILITY MAN-HOUR RANGE 497.69 – 829.47								
Air Force Specialty Title	**AFSC**	**Grade**	**Manpower Requirement**								
Sheet Metal Mechanic	2A7X3	CIV	2	3	4	5	6	7			
Total			2	3	4	5	6	7			

NOTE. AFSCs may be adjusted at the discretion of the Commander.